

U.S. Army Tank-automotive & Armaments Command Equipment and Facilities

TARDEC is the only Army/DoD Tank-automotive & Armaments Research, Development and Engineering Center committed to overall ground vehicle technology and integration.

VETRONICS SIMULATION LABORATORY – Battlefield Observation Room, Simulation Control Room, Distributed Simulation Internet Node, Reconfigurable Crew Station, Advanced Electronic System Integration Lab.

NATIONAL AUTOMOTIVE CENTER – a joint venture with the American automotive industry and TARDEC, is leading the way in 'dual use' of critical technologies.

SUPERCOMPUTER – the Army Regional Supercomputing Facility (ARSF) at TARDEC is one of only three such facilities within the Army. The ARSF provides computational services to TARDEC, defense contractors, supporting activities such as the Heavy Force Modernization Program, and other major Army commands.

PROPULSION LAB has six engine and transmission test cells and three vehicle test cells, a chassis dynamometer facility, a truck drive line test cell, brake, tire, heat exchanger, air cleaner, battery testing facilities.

ARMOR INTEGRATION LAB performs armor system fabrication and ballistic testing.

ENVIRONMENTAL TEST CELL performs high temperature performance tests on vehicles.

VETRONICS INTEGRATION LAB utilizes the Standard Army Vetronics Architecture to provide globally shared functions common to vehicle subsystems.

COMBAT VEHICLE COMMAND AND CONTROL FACILITY provides an automated command and control system for armor/infantry vehicles, a tactical situation display in all vehicles, and supports the Army Horizontal Technology Insertion Program.

CREW STATION/TURRET MOTION BASE SIMULATOR provides vehicle dynamic full-scale simulation.

BRIDGE TEST FACILITY used in testing static or dynamic cyclic loads on various bridge designs.

WATER QUALITY AND WATER TEST CELL LABORATORIES used for the testing of various water filter elements, water filter systems, and provides chemical analytical support to water purification engineer functions.

FUEL EQUIPMENT TEST LABORATORY used for testing and evaluating fuel pumps, fuel filter elements, fuel filter separators, fuel nozzles and engine fuel filter elements.

GREASE AND FLUID LABORATORY provides analytical support required for the qualification, evaluation, and analysis of greases, hydraulic fluids, antifreeze, solid film, and general purpose lubricants.

FUELS AND LUBRICANTS LABORATORY provides analytical support required for the analysis of engine oils, gear lubricants, diesel and jet fuel.

TARDEC FUELS AND LUBRICANTS RESEARCH FACILITY (SWRI) used to conduct studies of physical properties, performance characteristics, and chemical composition of fuels, lubricants, and other power train fluids.

TRACK AND SUSPENSION LABORATORY

Other facilities and equipment include: software engineering, signature, dynamic motion simulator (seat simulator), fabrication, computer-aided design, laser, packaging engineering, model shop, metallurgical, mechanical test, animation capabilities used in support of virtual prototyping, rapid prototyping, visualization capabilities, sheet/metal welding, machine shop, assembly shop, electrical, battery test, instrumentation, IR imaging, thermal wave microscopy, applied engineering, robotics engineering, and driving aids.